

Appendix 6: Management Approach to Bleeding at Bronchoscopy

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Major bleeding is uncommon following bronchoscopic biopsies but can complicate transbronchial lung biopsy or biopsy of some endobronchial tumours.

General Approach:

1. Consider whether the biopsy is necessary.
Only a few diagnoses can be reliably made with TBLB, and sampling of nodal or extra thoracic disease in malignancy may be more appropriate than endobronchial disease where staging information is required.
2. Does the patient have appropriate physiological reserve to withstand haemorrhage, and a secure patent airway
3. If bleeding is considered highly likely and biopsy urgent/ mandatory, ensure good IV access, commence supplemental oxygen, apply prophylactic local vasoconstrictor therapy and achieve the best first biopsy possible. Where available, the use of argon plasma coagulation or other similar haemostatic biopsy technique could be considered. Ensure senior advice/ assistance is available. As an alternative, consider a rigid bronchoscopic biopsy.

In the event of significant unexpected bleeding:

1. Ensure adequate oxygenation and IV access for fluid resuscitation. Vital signs should be monitored regularly.
2. Retract the bronchoscope proximally to maintain vision, and apply suction to remove free blood to preserve airway patency. Consider lying patient onto the side of the bleeding. Do not suction to remove clot.
3. Consider the application of local vasoconstrictor therapy. Agents include 5-10ml 1:10000 epinephrine or 5-10ml 4°C saline. Saline has the advantage that it may be administered repeatedly.
4. If bleeding continues, the bronchoscope should be wedged into the bleeding segmental bronchus, if possible, and held in place for 10-15 minutes.
5. If this does not control the bleeding, a balloon catheter can be used to apply pressure and isolate the segment.
6. Check platelet count, PT and PTT, and recheck drug history.
7. Seek senior/expert assistance, and consider referral to critical care.

(TBLB : Transbronchial lung biopsy, PT: Prothrombin time, PTT: partial thromboplastin time)